

Vermont Mental Health Performance Indicator Project

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MEMORANDUM

TO: Vermont Mental Health Performance Indicator Project
Advisory Group and Interested Parties

FROM: John Pandiani and Monica Simon

DATE: October 18, 2002

RE: Diabetes and Asthma in CRT Caseload

At the Fall 2002 meeting of the PIP Advisory Group, the health status of adults with severe and persistent mental illness and of mental health service recipients in general was an area of major concern. This week's PIP was prepared in response to that interest building on analyses we are conducting in conjunction with two other projects. One of these projects involves examination of diabetes treatment rates for CRT clients. The other involves examination of rates of hospitalization for asthma in Vermont.

Because of the nature of the data sets available the diabetes and the asthma analyses used different methods for determining caseload overlap. The diabetes analysis used direct record linkage technology to measure the caseload overlap between two extracts from the State's Medicaid paid claims database. One extract includes information on recipients of Medicaid reimbursed CRT services during calendar year 1999. The other extract includes information on recipients of Medicaid reimbursed diabetes treatment during the same time period. The presence of diabetes was identified through paid claims for prescription drugs according to criteria developed by NCQA (National Committee on Quality Assurance). These data were provided to the PIP by VPQHD (the Vermont Program for Quality in Health Care). These two extracts were linked using client Medicaid number. Relative risk of outpatient diabetes treatment is based on a comparison of the rate at which CRT clients receive outpatient diabetes treatment and the rate at which all Medicaid recipients in the same age-gender categories receive outpatient diabetes treatment.

The asthma analysis uses Probabilistic Population Estimation to measure the caseload overlap between extracts from the Monthly Service Reports (MSR) provided to DDMHS by community mental health centers and the Hospital Discharge Data Set maintained by the Vermont Department of Health. The extract from the MSR includes basic demographic information about all CRT clients served during calendar year 1999. The extract from the Hospital Discharge Data Set includes basic demographic information about all episodes of hospitalization with a primary diagnosis of asthma during the same time period. Probabilistic Population Estimation was used to estimate the number of individuals shared across data sets (with 95% confidence intervals) because these data sets do not share unique person identifiers. Relative risk of inpatient asthma treatment is based on a comparison of the rate at which CRT clients receive inpatient

asthma treatment and the rate at which all adult Vermont residents in the same age-gender categories receive inpatient asthma treatment.

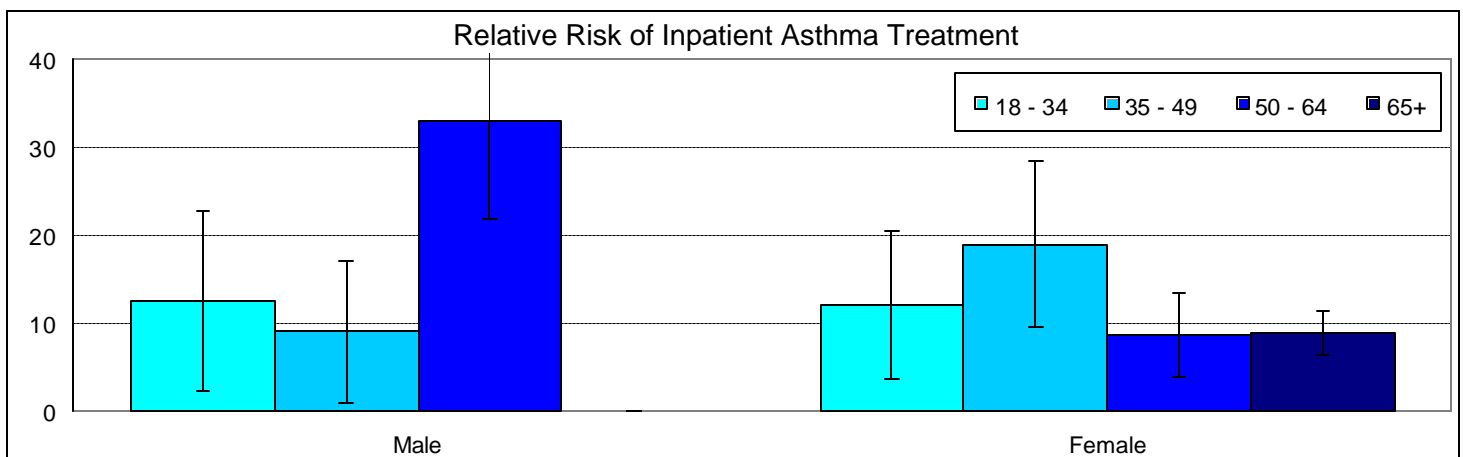
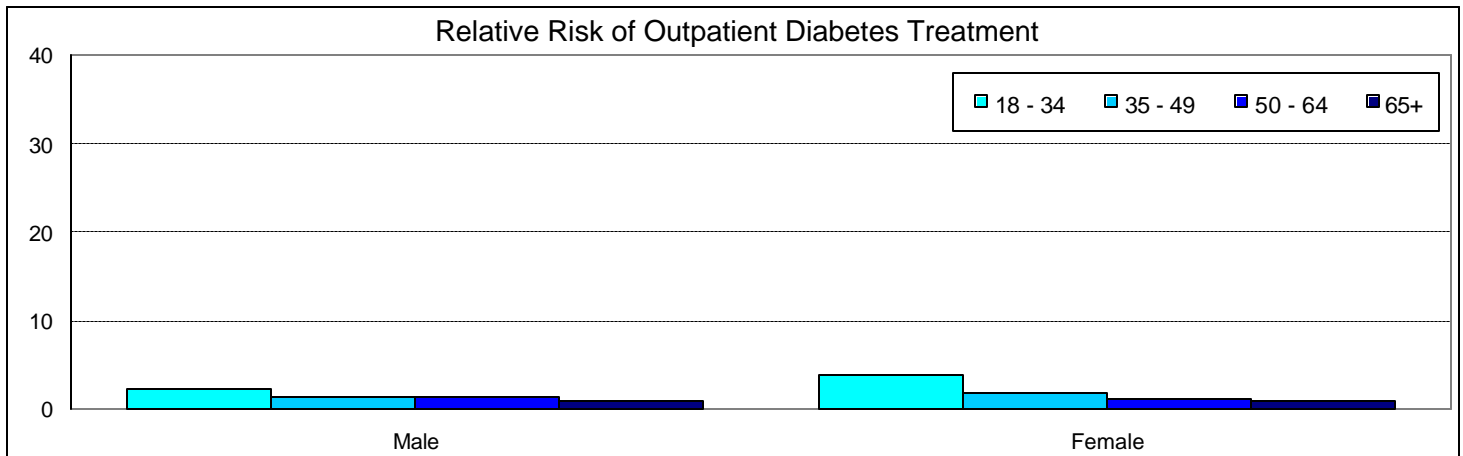
As you will see, the treated prevalence of both asthma and diabetes were higher than the treated prevalence for the relevant comparison group for most age-gender groups. The relative risk of asthma, however, was substantially higher than relative risk of diabetes for seven of our eight age/gender groups.

The highest relative risk of inpatient asthma treatment was for 50 to 64 year old men, where CRT service recipients were more than 32 times as likely to be hospitalized for asthma as men in the same age group in the general population. Women in the 35 to 49 year age group were almost 19 times as likely to be hospitalized for asthma as their counterparts in the general population. Men and women in the 18 to 34 year age group were 12 times as likely as other residents to be hospitalized. Women over 50 and men in the 35 to 49 year age group were between 8 and 9 times as likely as other Vermont residents in the same age/gender groups to be hospitalized. These highly elevated relative risks are consistent with the elevated mortality rates for CRT clients (www.state.vt.us/dmh/Data/PIPs/Ordered_by_pages/mortality.htm).

Relative risk of outpatient diabetes treatment decreased with increasing age for both men and women. The highest relative risk of diabetes was for young women (18 to 34 years) where CRT service recipients covered by Medicaid were almost 4 times as likely to receive community-based services for diabetes than other Medicaid enrollees. Men in the 18 to 34 age group were twice as likely to receive diabetes services as other Medicaid enrollees. In the 35 to 49 year age group the relative risk for women was 1.8 and the relative risk for men was 1.4. In the 50 to 64 year age group, the risk of diabetes for CRT clients was 20% higher than other Medicaid enrollees (relative risk 1.2) and the risk of diabetes for women was identical to other Medicaid enrollees (relative risk 1.0). The diabetes rate for people 65 years and older was actually lower than the rate for other Medicaid enrollees (relative risk 0.9 for men and 0.8 for women).

One direction for further analysis in this area is to include inpatient treatment for diabetes and outpatient treatment for asthma. We look forward to your comments and your suggestions for further analyses of these data to pip@ddmhs.state.vt.us or 802-241-2638.

Community Rehabilitation and Treatment Clients Receiving Outpatient Diabetes Treatment and Inpatient Asthma Treatment Calendar Year 1999



Received Outpatient Services for Diabetes

	Male				Female			
	18 - 34	35 - 49	50 - 64	65+	18 - 34	35 - 49	50 - 64	65+
Percent of CRT Medicaid Clients	2.1%	5.0%	14.1%	11.7%	3.5%	6.5%	14.1%	12.2%
Medicaid Enrollees	1.0%	3.7%	11.7%	13.3%	0.9%	3.6%	14.1%	14.5%
Relative Risk	2.1	1.4	1.2	0.9	3.9	1.8	1.0	0.8

Received Inpatient Care for Asthma

	Male				Female			
	18 - 34	35 - 49	50 - 64	65+	18 - 34	35 - 49	50 - 64	65+
Percent of CRT Clients Served	0.22% ± 0.18%	0.13% ± 0.12%	0.88% ± 0.30%	0.00% ± 0.00%	0.84% ± 0.59%	1.26% ± 0.63%	0.77% ± 0.43%	1.20% ± 0.35%
General Population	0.02% ± 0.001%	0.02% ± 0.001%	0.03% ± 0.001%	0.05% ± 0.001%	0.07% ± 0.002%	0.07% ± 0.002%	0.09% ± 0.002%	0.14% ± 0.002%
Relative Risk	12.3 ± 10.3	8.9 ± 8.0	32.8 ± 11.2	0.0 ± 0.0	12.0 ± 8.4	18.9 ± 9.4	8.5 ± 4.8	8.8 ± 2.6

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